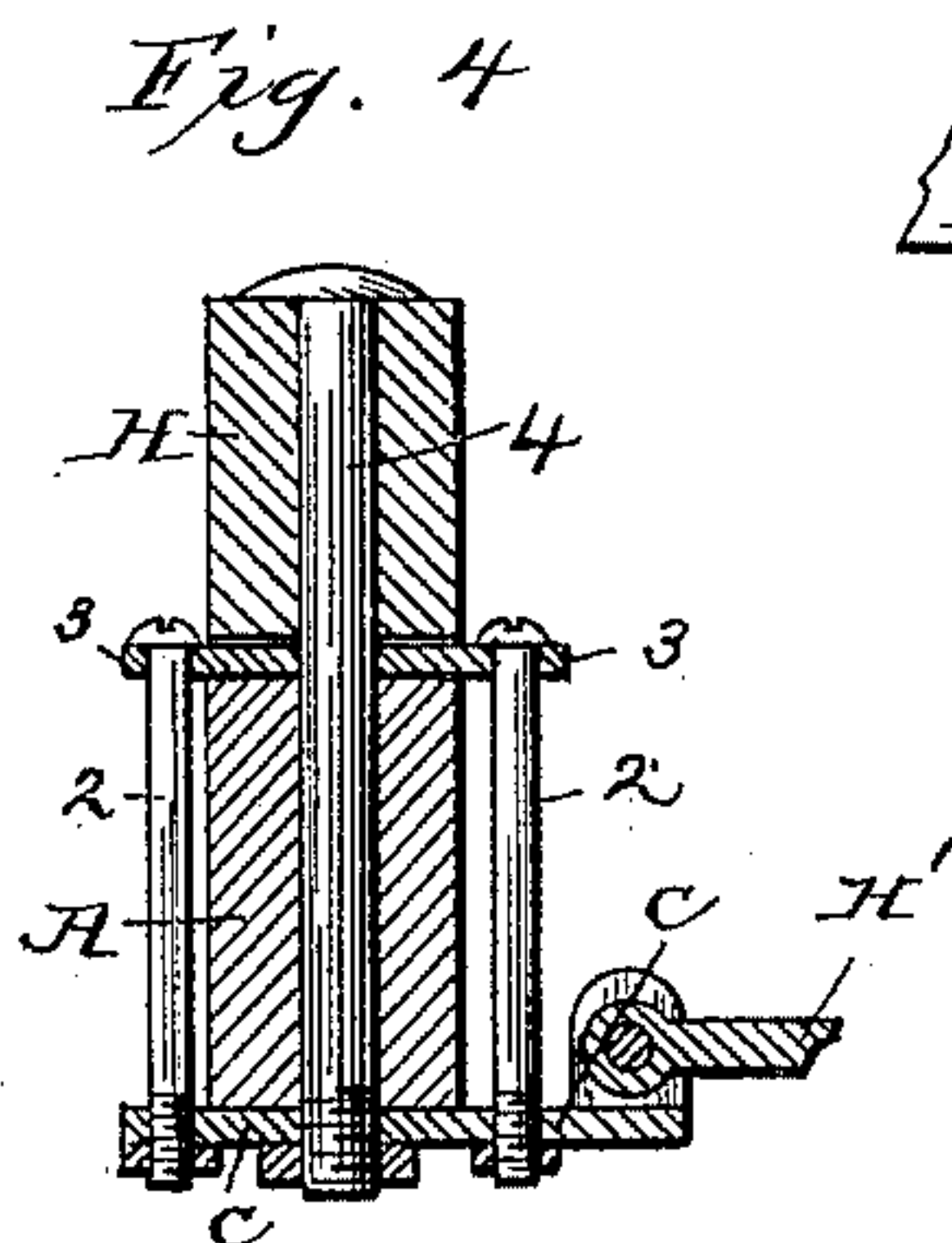
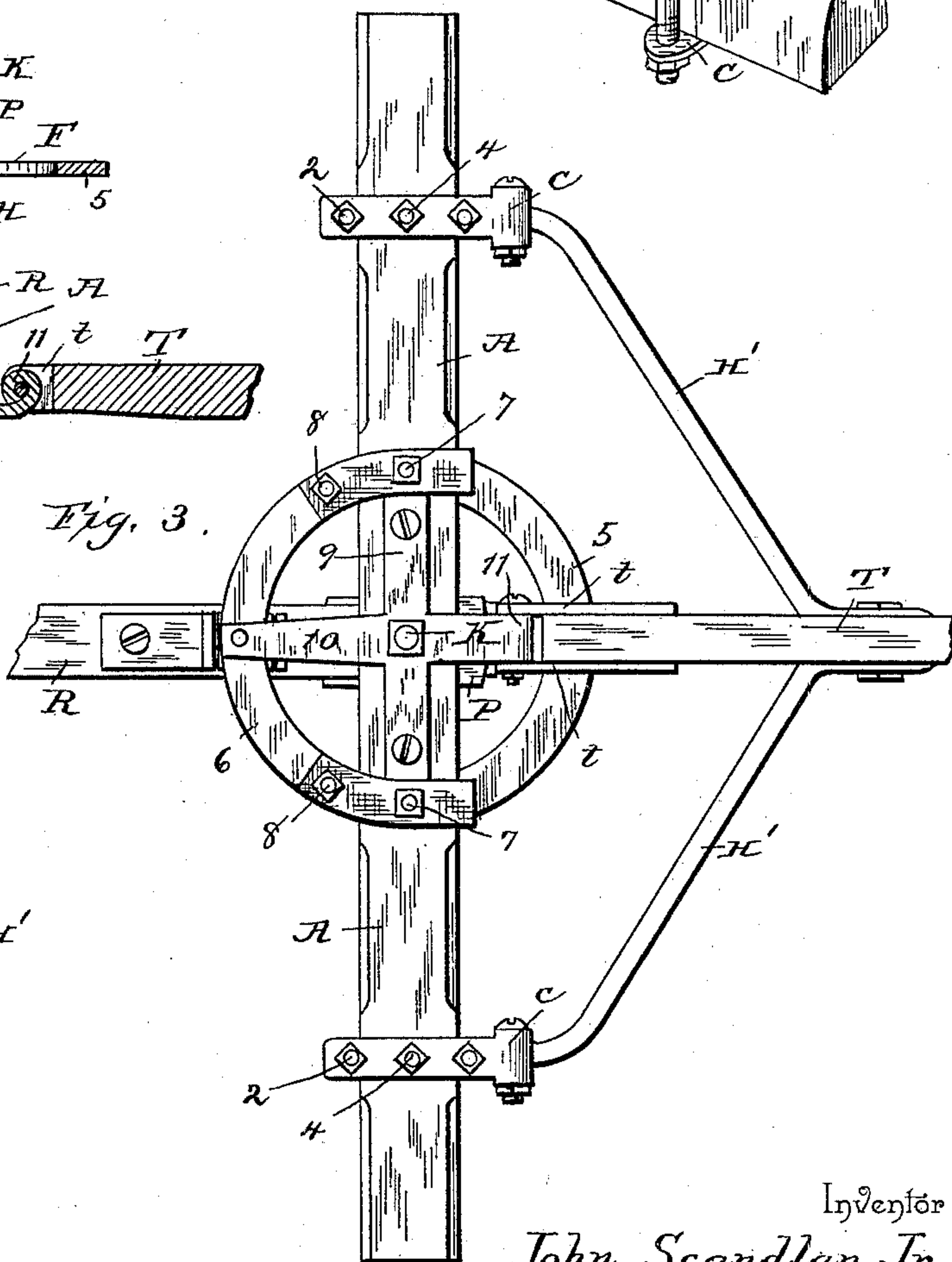
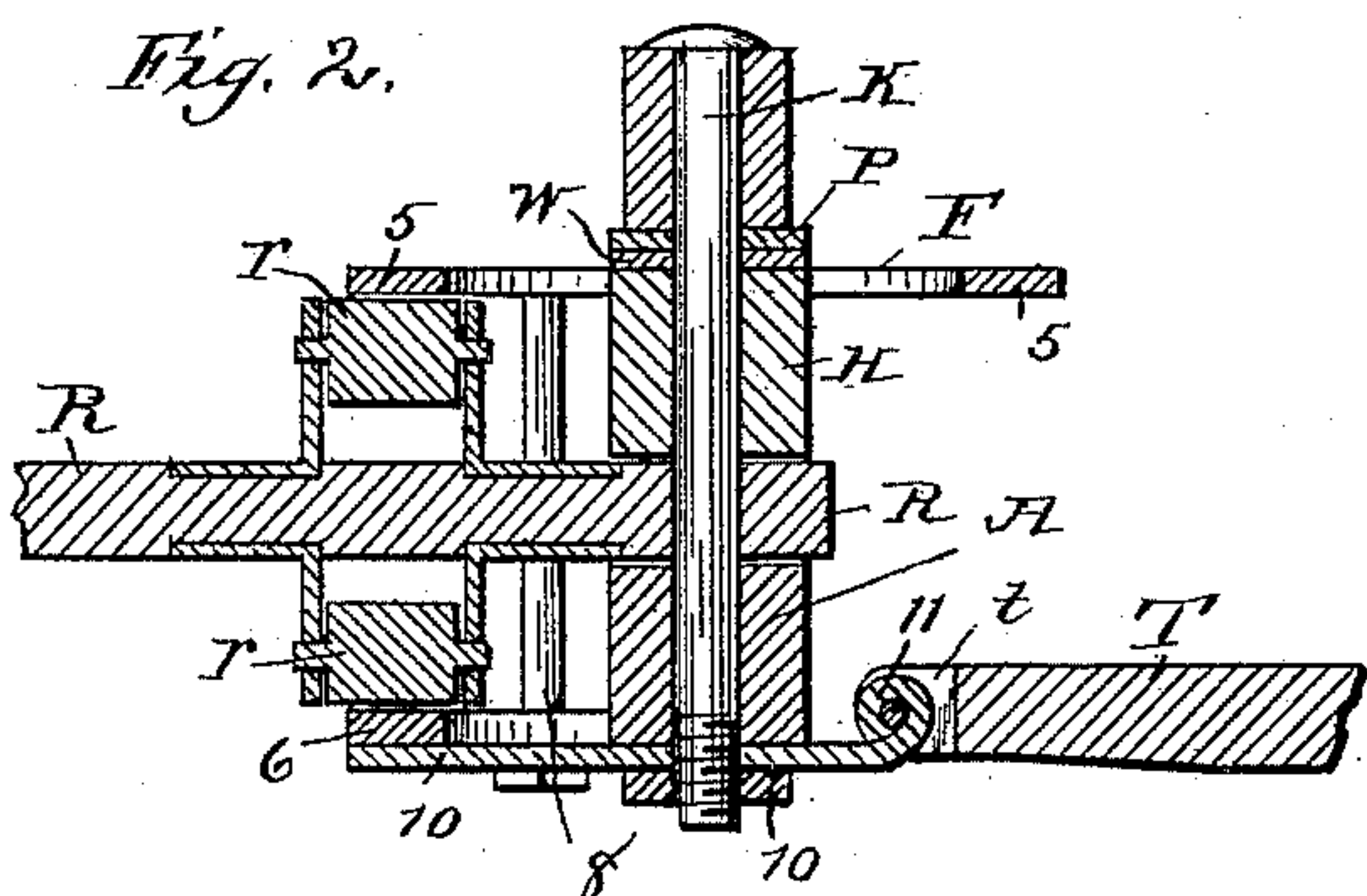
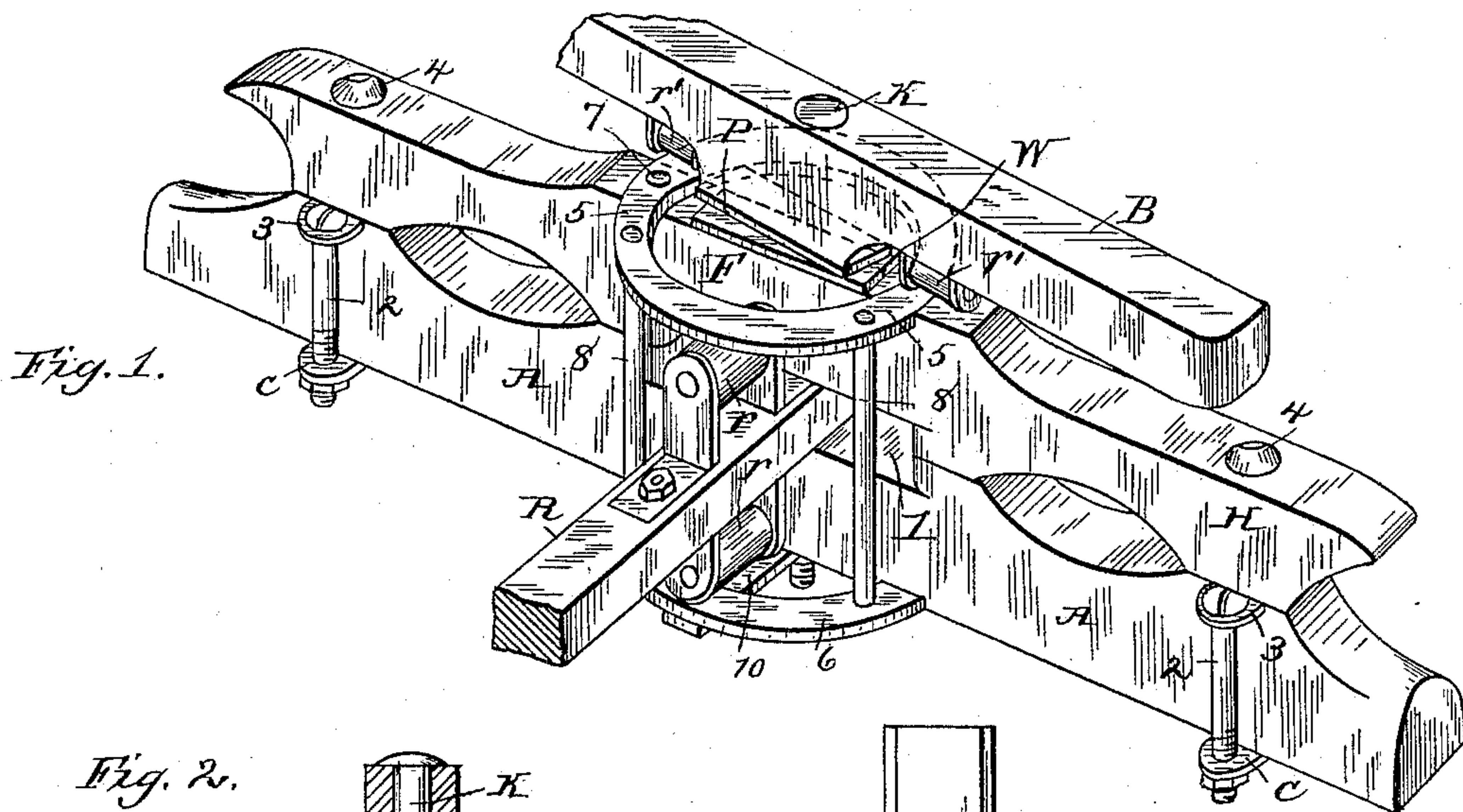


(No Model.)

J. SCANDLAN, Jr. & G. A. GROSS.
FIFTH WHEEL.

No. 431,152.

Patented July 1, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN SCANDLAN, JR., AND GEORGE A. GROSS, OF BROKEN STRAW,
NEW YORK.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 431,152, dated July 1, 1890.

Application filed February 28, 1890. Serial No. 342,153. (No model.)

To all whom it may concern:

Be it known that we, JOHN SCANDLAN, JR., and GEORGE A. GROSS, citizens of the United States, residing at Broken Straw, in the county of Chautauqua and State of New York, have invented a new and useful Fifth-Wheel, of which the following is a specification.

This invention relates to wagons, and more especially to the fifth-wheel thereof, as well as to the adjacent parts effecting the pivotal connection of the reach and the bolster with the front axle and of the tongue and hounds therewith.

The object of the invention is to provide a device which will more effectually prevent the forward and back tilting of the front axle and the parts connected thereto, which will form a reliable pivot between the bolster and said axle, and which will furnish three pivotal points between said axle and the tongue. This object we accomplish by our improved construction, which consists, essentially, of a head-block mounted upon the front axle, with a recess between them at their centers, a two-part fifth-wheel whose members stand, respectively, above and below the combined head-block and axle, a bolster above the upper member of the fifth-wheel, having friction-rollers on its under side rolling upon it, a king-bolt passing through all the parts, a reach whose front end enters said recess and whose body carries friction-rollers adapted to engage the adjacent faces of the two members of the fifth-wheel, a bracing-strap extending from the lower member of the fifth-wheel beneath the axle, a tongue pivoted to said bracing-strap, and rearwardly-diverging hounds pivoted in the ordinary clips near each end of the axle.

The invention also consists of adjunctive and specific details incident to this construction which assist in carrying out said object and certain auxiliaries which tend to enhance the value of the completed device, all as hereinafter more fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the rear side of the front axle, showing our improvements. Fig. 2 is a central longitudinal section of the same with the reach in place. Fig.

3 is a bottom plan view, and Fig. 4 is a transverse section of the axle through one of the hound-clips.

It has been customary heretofore to secure the head-block H upon the front axle A in any preferred manner and to pivot the forward end of the reach upon the king-bolt K, which also passes upwardly through the head-block and serves as a pivot for the bolster B. Said bolster has also been provided with a bolster-plate P, which slid upon and was supported by the fifth-wheel F. It has also been customary to provide the tongue T with rearwardly-diverging hounds H', having eyes at their free ends, which were pivoted in clips C, secured to the under side of the axle.

Coming now to the present invention, the axle and head-block are recessed, as at 1, on their adjacent faces near their centers, and the king-bolt K passes vertically through this recess, the front of the reach R being inserted in said recess and journaled on the king-bolt.

The clips C, near the ends of the axle, are held in place by bolts 2, whose upper ends engage a plate 3, which passes between the axle A and the head-block H at their outer ends, as shown in Fig. 4, and another bolt 4 passes through the head-block, through the plate 3, through the axle, and through the clip-plate C. By this means the head-block and axle are very firmly connected at their ends; but the former can be removed, when desired, without disconnecting the clips from the axle.

The fifth-wheel F comprises a metal ring 5, mounted upon the upper face of the head-block concentrically with the king-bolt K, and a metallic half-ring 6, mounted upon the lower side of the axle A and projecting rearwardly therefrom, and which is also concentric with the king-bolt. Bolts 7 pass through these two members 5 and 6 and through the axle and the head-block at each side of the recess 1. If desired, other bolts 8 may also connect these two members at the points just in rear of the rear faces of the head-block and axle, as shown in Fig. 1. The reach R, which is pivoted on the king-bolt K in the recess 1, as above stated, has friction-rollers 7, journaled in bearings on its upper and lower

sides, which rollers bear upwardly and downwardly against the adjacent faces of the upper and lower members of the fifth-wheel.

The bolster-plate P, which is secured to the under side of the bolster B in any suitable manner, preferably moves over a washer W or head-block plate which surrounds the king-bolt inside the ring 5, and said bolster is provided with friction-rollers r' , mounted in bearings on its under side, which rollers travel on the upper face of the ring.

The half-ring 6 is provided with a pair of straps 9 and 10, extending diametrically across it at right angles to each other, the strap 9, standing parallel with the axle, and the strap 10 at right angles thereto, and the king-bolt K passes through said straps at their point of intersection. The forward ends of the half-circle 6 are preferably turned up against the front of the axle, and the forward end of the strap 10 is also turned up and provided with an eye 11, which is in exact alignment transversely of the wagon-body with the eyes in the clips C. The rear end of the tongue T is provided with ears t , which embrace said eye 11, and a bolt is passed there-through, whereby the parts are pivoted together.

The head-block is held upon the axle by the two bolts 4 through the clip C, by the two bolts 7, through the members of the fifth-wheel, and by the king-bolt K. The reach is pivoted on the king-bolt, and the friction-rollers on said reach by engaging between the two members of the fifth-wheel effectually prevent the front axle from rocking forward and back. The friction-rollers on the under side of the bolster, together with the bolster-plate P, the washer W, and the king-bolt K, effectually prevent the bolster from tilting on the head-block, no matter what angle it stands thereto. As the ring 5 is continuous, a bearing is always afforded beneath the friction-rollers on the bolster. The diametric straps within the half-ring 6 serve the better to brace it and to strengthen it, and the forward end of one strap is utilized as a pivotal point for the rear end of the tongue, being in exact alignment with the pivotal points of the clips C at the rear ends of the hounds. The draft is on the bottom of the axle, which is most desirable, and as the main portion of the draft is resisted by the pivotal connection at the rear end of the axle there is less tendency to draw the hounds inwardly at their free ends, and thus twist the clips C.

It will be understood that the auxiliaries described above are not essential to the successful operation of this device; but I prefer to employ the details of construction specified because their use tends to enhance the mechanical success of the invention as a whole.

What I claim is—

1. The combination, with the axle and the head-block recessed near their centers, the two-part fifth-wheel whose members are mounted upon the head-block and beneath the axle, and bolts passing through said members and through the head-block and axle at each side of the recess, of a reach pivoted upon the king-bolt within said recess and adapted to move between the two members of the fifth-wheel, substantially as described.

2. The combination, with the axle and head-block, the two-part fifth-wheel, its upper member comprising a ring 5, mounted upon the head-block, bolts passing through the upper and lower members of the fifth-wheel and through the head-block and axle, other bolts 8, connecting said members in rear of the axle, and a king-bolt and reach, of a bolster pivoted on the king-bolt above the head-block, and friction-rollers on the lower side of the bolster traveling upon the upper member of the fifth-wheel, substantially as described.

3. The combination, with the axle and head-block recessed at their centers, and the two-part fifth-wheel comprising a ring-shaped upper member 5 and a half-ring lower member 6, projecting rearwardly from the axle and head-block and secured thereto, of the vertical king-bolt passing through said recess, the reach pivoted thereon, and friction-rollers r , journaled in bearings on the upper and lower side of the reach and bearing against the inner faces of the two members of the fifth-wheel, substantially as described.

4. The combination, with the axle and the king-bolt, of the half-ring 6, secured to the lower side of the axle, the diametric strap 9, parallel with the axle, the diametric strap 10 at right angles to the axle and provided with an eye 11 at its front end, the king-bolt passing through said straps at their point of intersection, and the tongue pivoted in said eye, substantially as described.

5. The combination, with the axle A, the clips C, near the ends thereof, the half-ring 6 on the lower side thereof around the king-bolt, the strap 9, connecting the sides of the half-ring, the strap 10 at right angles to the strap 9, and the eye 11 in the front end of said strap and in alignment with the eyes in the clips, of the tongue T, having ears t , embracing said eye 11, a pivot-bolt through them, and the rearwardly-diverging hounds connected with the tongue and pivoted at their rear ends in the clips, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOHN SCANDLAN, JR.
GEO. A. GROSS.

Witnesses:

GEO. A. MATHER,
DANIEL FOWLER.